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Legislative Proposal Review of the Bataan Nuclear Power Plant Re-Commissioning Act of 2008

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By Marlou B. Mumar

With the premise that the country is facing a serious threat of power shortage in the very near future and global warming as a result of fossil fuel burning to generate electric power, reviving the mothballed Bataan Nuclear Power Plant is believed to be the only viable answer.

This is the gist of the whole argument in the House Bill No. 4631 or the "Bataan Nuclear Power Plant Re-Commissioning Act of 2008" filed by Rep. Mark O. Cojuangco in July 2008 during the Fourteenth Congress.

The Bill

The House Bill No. 4631 has 20 important sections that clearly state what the Act means, what it aims to address, and what it envisions for the future Filipino generation.

The bill mandates and authorizes the immediate re-commissioning and commercial operation of the Bataan Nuclear Power Plant (BNPP). The mandate and authority will be under the direct supervision and control of the Department of Energy. In overseeing the licensing and regulations of the nuclear power plant, Philippine Nuclear Research Institute (PNRI) is mandated to take charge. NAPOCOR is also mandated to spin-off portions of its organization to form a government-owned corporation to further hasten and streamline the re-commissioning of the nuclear power plant (Cojuangco 2008).

After thorough assessment, evaluation, maintenance, repair, replacements, rehabilitation or upgrades, NAPOCOR shall warrant that the BNPP conforms to the Philippine nuclear state of the art and retain and/or include modifications to allow all US Nuclear Regulatory Commission rulings regarding operating guideline revisions pertinent to "the Three Mile Island" nuclear accident.

The bill also authorizes modernization of the nuclear instrumentation and control equipment to ensure safety and effective operation. This entails technological upgrades and rigorous emergency evacuation planning to meet the revisions and guidelines pertinent to the Three Mile Island and Chernobyl accidents.

The bill waives the Philippine nationality requirements for the hiring of the technical, supervisory and managerial positions required by the plant for the first ten years of operation. NAPOCOR is mandated to implement program for training to cultivate and develop a pool of necessary local skilled manpower for the management and operation of all the technical aspects of the plant and for the future nuclear power industry. The bill also specifically mandates the University of the Philippines as the national university to offer courses in nuclear engineering and nuclear plant operation to prepare the Filipino youth for nuclear industry.

The bill stipulates that the disposal of radioactive wastes may be through a local scheme to be determined by Congress or through a re-processor highly recognized by the International Atomic Energy Agency (IAEA). The bill authorizes a sinking fund of US \$0.1 to \$0.2 per kwh to cover the expenses for the future decommissioning of the plant at the end of its operational life. Moreover, NAPOCOR shall allocate \$0.1 per kwh for costs of radioactive waste disposal and spent fuel disposal program of BNPP. These funds shall be under the custody of the National Treasurer (Cojuangco 2008).

NAPOCOR is mandated to complete the rehabilitation at a cost that is substantially below one half of the cost of a brand new coal-fired power plant of equal capacity. The President through the DOE is given the authority to determine and decide the mode by which the mandate of the bill is to be attained. Such mode may be by administration and/ or contract rehabilitation, but not to operate.

An oversight committee will be created that will be composed of Chairmen of the Committees on Energy of the Senate and the House of Representatives and four additional members from each House. The committees will monitor and ensure the proper implementation of this Act.

The amount necessary for the initial implementation of this Act will be charged against the appropriations of the Department of Energy under the current general Appropriations Act or appropriated and covered by NAPOCOR in its annual budget.

The Significance, Feasibility, and Cost

The account that the Philippines is vulnerable to the threat not just of power shortages but high electricity rates is without a doubt a fact. The increasing environmental issues attributable to power generation are another concern not only in the country, but around the world.

Coal and natural gas as fuels for energy production are harmful to the environment. On the other hand, other energy sources such as geothermal, hydrothermal and solar power plants are cost-ineffective relative to nuclear power plant. Hence, local and international science academies and professional societies turn to nuclear technology as an alternative.

The House Bill 4631 creates manifold dialogues and serious debates on the issue of re-commissioning the Bataan Nuclear Power Plant. But before we squabble over whether this plant has to continue to operate or not, let's analyze first what BNPP promises to bring to the country.

BNPP is capable of producing 620 megawatts of power, enough to power the islands of the Visayas. If made to operate, it can meet twenty percent (20%) of the country's expected shortfall of three gigawatts of energy by 2012. If allowed to run, the electricity production costs of this power plant will be cheaper per kilowatt hour compared to oil-fired thermal, coal or natural gas plants. The average generating cost of the industry in the United States is at USD \$0.0166 or around PhP 0.73 per kilowatt hour at an exchange rate of PhP 43 to a dollar. This already factors in the cost of waste disposal. The uptime reliability of nuclear power is more than ninety five percent, a rate unmatched by other power generating technologies (Santiago 2008).

It is for this above-mentioned statement that the bill is deemed significant. The bill, however, doesn't clearly state where to get the funding for the immediate re-commissioning and commercial operation of BNPP. Nevertheless, the multiplier effects of this plant on the economy and society as a whole are impeccably expected.

The Policy Process

One can surmise that before this bill came into being, it had gone through a painstaking process of policy analysis. After knowing that there was a policy issue, the author of the bill engaged in a number of dialogues with the stakeholders involved in the issue. He became involved in and listened to numerous debates. He and his staff researched on scientific studies and consulted academicians, scientific communities, experts, and ordinary people regarding their views on the issue.

After collecting all the data, synthesis was made. Policy formulation was then established. Alternative solutions were looked into. Then the best solution was determined as well as the means of achieving the target goals.

House Bill No. 4631 was consequently created and filed on the 3rd of July 2008 with a full title “An Act mandating the immediate re-commissioning and commercial operation of the Bataan Nuclear Power Plant, appropriating funds therefore, and for other purposes.” Since then, the bill has gone through a series of committee hearings. A counterpart proposal in the Senate was filed by Senator Merriam Defensor Santiago.

The bill is still pending and substituted by House Bill No. 06300 after being approved by the Committee on Rules on the 19th of May 2009.

Should This Be Adopted?

Should this be adopted as a national policy? Absolutely! Let me attempt to debunk the opposition to the bill culled from the position papers presented by the Panel of Resource Speakers who participated in the Committee hearing on the 2nd of February 2009 (FCAID 2009):

1. *“The BNPP Bill lacks feasibility study.”* This statement is misleading. The bill itself stands on a strong scholarly foundation. It requires reason, not emotion to understand the bill. BNPP site had been studied for more than 11 years prior to the decision to purchase it in the 70’s. More recently, and again in the 90’s, it has also been evaluated and re-evaluated by the IAEA and has been found to be sound in accordance with their guidelines (Cojuangco 2008, Explanatory Note).
2. *“The BNPP is structurally defective and unsafe.”* The design of the BNPP is not unique. BNPP has three sister plants which were constructed simultaneously during the 70’s. These are the Krsko in Yugoslavia, Kori 2 in South Korea and Angra 1 in Brazil. These power plants have been in operation for over 20 years now. No minor and major accidents have been reported. The plant type of BNPP is PWR or Pressurized Water Reactor which accounts for 265 nuclear power plants of the total 439 operating worldwide (based on the 2007 figures) or 60%. In spite of this figure, not a single death has been attributed to the operation of this type of nuclear power plant in the last forty plus years (Cojuangco 2008, Explanatory Note).
3. *“The BNPP Site has an unacceptably high risk of serious damage from earthquakes, volcanism, or both.”* This claim is not true. A very many nuclear plants and other nuclear facilities in the world are located near geological fault lines. The BNPP is located on the sound bedrock and its location is as good as that of any other comparable power plants. It is beside the fault line. It doesn’t straddle the fault line. A thinking person knows the difference.

4. *“The BNPP is an unnecessary response to faulty power shortage projections.”* The country has been on a sporadic shortage of power ever since. The problem is not just shortage but the surging electricity rates. Energy is the basic requirement to run the economy. But the shortage of power in the recent history of the country and the high electricity rates make the country a victim of Power Purchase Agreement (PPA). Nuclear power plant offers the most cost-effective source of energy. This will put an end to the country’s unbearable dependence on oil and to immoral contracts that the previous administrations engaged into in a desperate attempt to solve the power shortage.
5. *“The BNPP would be costly to operate and accompanied by enormous hidden costs.”* This is another lie. Nuclear power plant is proven to be the most cost-effective source of energy to date. Section 13 of the proposed bill states that “NOPOCOR shall endeavor to complete this mandate at a cost that is substantially below one half of the cost of a brand new coal fired power plant of equal capacity. Under no circumstances shall the cost exceed the price of a brand new coal fired power plant of equivalent power generating capacity” (Cojuangco 2008).
6. *“The BNPP is a glaring testimony to the government's continuing wasteful debt policy at the expense of the people's welfare.”* BNPP is declared as a national patrimony, thus must be treasured and taken full advantage of by the people. We paid for it, thus we must use it. The sufferings in the past should not justify the sufferings in the future.
7. *“The BNPP is not an answer to Climate Crisis, nor an alternative to Renewable Energy.”* Many green advocates conveniently promote solar which is not bad at all. But using big mirrors to store energy is not a practical idea to run an economy at a faster pace. It is unreliable as the sunlight doesn’t stay 24 hours, at least on earth. Solar power plant, like wind power plant, requires big land area and massive manpower, which in the end is more expensive and inefficient. We have hydro and geothermal which should stay as sources of energy. But nuclear remains to be superior.

The Philippine government must reconsider nuclear power technology as this has been scientifically proven to be the most cost-effective and environment-friendly source of energy to date. BNPP has been stigmatized as environmentally dangerous. The fact of the matter is that the technology has already evolved and been modernized.

The Philippine government spent \$2.3 billion to build BNPP without generating a kilowatt of electricity. It is high time to revisit the old strategy to secure the country with enough energy power and finally free the country from dependence on imported oil. It is worth mentioning here that the International Atomic Energy Agency inspected the power plant in Bataan in 2008 and reported that

this could be rehabilitated, in full compliance with high international safety environment standards, in at least five years at a cost of \$800 million (Burgonio 2008).

If there's one aspect of the bill that is lacking in substance, that is the source of funding the BNPP operation. I strongly suggest that the author and co-authors of the bill must stipulate where the government can get the money from to start the rehabilitation and operation of BNPP. What I suggest as a fiscal strategy, the government should urgently declare debt moratorium to start the rehabilitation. The Philippines is servicing the debt over US \$10 billion per year, which is more than enough to start the full operation of BNPP and advance nuclear power industry in the country.

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